What is claimed is:

1. A traveling wave tube circuit assembly comprising a traveling wave tube:

a predistortion network RF coupled to the traveling wave tube and disposed in the traveling wave tube;

an amplifier;

a connecting cable coupling the amplifier to the predistortion network.

2. An assembly as recited in claim 1, wherein said amplifier is disposed in a low temperature zone.

3. An assembly as recited in claim 1, wherein said predistortion network is disposed in a high temperature zone.

4. An assembly as recited in claim 1, wherein said predistortion network comprises a limiter.

5. An assembly as recited in claim 1, wherein said predistortion network has a range between 11 to –3dBm.

6. An assembly as recited in claim 1, wherein said predistortion network comprises:

a first limiter;

a first attenuator coupled in series with said first limiter; and

a phase shifter coupled in series with said first attenuator.

7. An assembly as recited in claim 6, wherein said predistortion network further comprises a second attenuator coupled in said series with said phase shifter.

8. An assembly as recited in claim 6, wherein said predistortion network further comprises a transmission line coupled parallel to said limiter, said first attenuator and said phase shifter.

9. An assembly as recited in claim 8, wherein said transmission line has a third attenuator.

10. An assembly as recited in claim 9, wherein said predistortion network further comprises a second limiter coupled in series with said third attenuator.

11. An assembly as recited in claim 1, further comprising a second amplifier coupled in series with said first amplifier.

12. A traveling wave tube circuit assembly comprising:

a high temperature zone having a predistortion network; and

a traveling wave tube coupled in series with the predistortion network;

a low temperature zone having an RF amplifier; and

an RF connecting cable coupling said low temperature zone and said high temperature zone.

13. An assembly as recited in claim 12, wherein said predistortion network comprises:

a first limiter;

a first attenuator coupled in series with said first limiter; and

a phase shifter coupled in series with said first attenuator.

14. An assembly as recited in claim 12, wherein said predistortion network further comprises a second attenuator coupled in said series with said phase shifter.

15. An assembly as recited in claim 12, wherein said predistortion network further comprises a transmission line coupled parallel to said limiter, said first attenuator and said phase shifter.

16. An assembly as recited in claim 12, wherein said transmission line has a third attenuator.

17. An assembly as recited in claim 12, wherein said predistortion network further comprises a second limiter coupled in series with said third attenuator.

18. An assembly as recited in claim 12 further comprising a second RF amplifier coupled in series with said first RF amplifier.

19. A satellite comprising:

a high temperature zone having a predistortion network; and

a traveling wave tube coupled in series with the predistortion network;

a low temperature zone having an RF amplifier; and

an RF connecting cable coupling said low temperature zone and said high temperature zone.